GARAGE MANAGEMENT SYSTEM

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1. INTRODUCTION

1.1 Project Overview

The **Garage Management System (GMS)** is a cloud-based application developed using Salesforce. It streamlines garage operations by managing customer records, booking appointments, tracking services, and automating workflows such as status updates and validations.

1.2 Purpose

The purpose is to eliminate the manual handling of garage tasks and provide a structured system that improves customer satisfaction, reduces errors, and ensures service quality.

2. IDEATION PHASE

2.1 Problem Statement

Manual garage operations often lead to inefficiencies such as misplaced records, lack of real-time updates, and poor customer experience. GMS addresses this by providing a digital, user-friendly platform.

2.2 Empathy Map Canvas

Think & Feel: Wants timely service
Hear: Other customers complaining
See: Staff struggling to find records
Say & Do: Constantly follows up
Pain: Poor service tracking
Gain: Wants real-time updates, transparency

2.3 Brainstorming

I explored ideas to improve service flow, digitalize record-keeping, automate updates, and provide a central system accessible from anywhere with Salesforce.

3. REQUIREMENT ANALYSIS

3.1 Customer Journey Map

1. Customer logs into Garage app
2. Enters details → Creates Consumer record
3. Books service → Appointment
4. Service starts → Service Record
5. Quality Check → Status auto-updates
6. Customer receives update

3.2 Solution Requirement

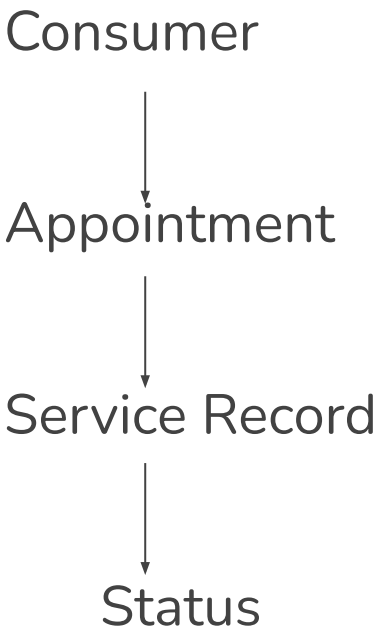
Functional Requirements:

- Create, Read, Update, Delete for all objects
- Validation rules for dates and vehicle format
- Auto-update status post-QC

Non-functional Requirements:

- Easy UI
- Performance efficiency
- Cloud-based accessibility

3.3 Data Flow Diagram



3.4 Technology Stack

Platform: Salesforce

Tools: Salesforce Admin & Developer

Automation: Workflow Rules, Validation Rules

UI: App Pages, Tabs, Record Types

4. PROJECT DESIGN

4.1 Problem-Solution Fit

Manual record-keeping causes inefficiency and errors. GMS solves this by digitalizing garage workflows, ensuring real-time tracking, validations, and service transparency.

4.2 Proposed Solution

A 3-object model (Consumer, Appointment, Service Record) connected by lookups, supported by automation (workflow, validation), and structured through tabs.

4.3 Solution Architecture

- Object Relationships
- Tabs for access
- Validation on fields
- Status auto-update using workflow

5. PROJECT PLANNING & SCHEDULING

5.1 Project Planning

Week	Task
1	Requirement gathering & Object creation
2	Layout customization & Validation
3	Automation with Workflow rules
4	Testing & Finalization
5	Documentation & Demo

6. FUNCTIONAL AND PERFORMANCE TESTING

6.1 Performance Testing

Test 1: Appointment Date Validation

- ✅ Date < Consumer Creation
  Test 2: Vehicle Format Check

- ✅ Only valid formats accepted
  Test 3: Status Automation

- ✅ Auto-updates after Quality Check
  Result: No performance issues; validations and workflows successful.

7. RESULTS

Most Recently Used

10 items

NAME	TYPE	OBJECT
Quality Check Status	Custom Field Definition	Service Records
Ishrat noori Mohammad	User	
Appointment Date	Custom Field Definition	Appointment
Replacement Parts	Custom Field Definition	Appointment
Repairs	Custom Field Definition	Appointment
Maintenance service	Custom Field Definition	Appointment
Appointment Layout	Page Layout	Appointment
Service Records	Custom Field Definition	Billing details and feedback

Search Setup

Setup | Home | Object Manager

SETUP > OBJECT MANAGER

Appointment

- Details
- Fields & Relationships
- Page Layouts
- Lightning Record Pages
- Buttons, Links, and Actions
- Compact Layouts
- Field Sets
- Object Limits
- Record Types
- Related Lookup Filters
- Search Layouts

Details

Edit | Delete

Description

API Name
Appointment__c

Custom
✓

Singular Label
Appointment

Plural Label
Appointments

Enable Reports
✓

Track Activities

Track Field History
✓

Deployment Status
Deployed

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Search Setup

Setup | Home | Object Manager

SETUP > OBJECT MANAGER

Billing details and feedback

- **Details**
- Fields & Relationships
- Page Layouts
- Lightning Record Pages
- Buttons, Links, and Actions
- Compact Layouts
- Field Sets
- Object Limits
- Record Types
- Related Lookup Filters

Details

Edit | Delete

Description

API Name
Billing_details_and_feedback__c

Custom
✓

Singular Label
Billing details and feedback

Plural Label
Billing details and feedback

Enable Reports
✓

Track Activities

Track Field History
✓

Deployment Status
Deployed

Help Settings
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Details

Description

API Name
Service_Records__c

Custom
✓

Singular Label
Service Records

Plural Label
Service Records

Enable Reports
✓

Track Activities

Track Field History
✓

Deployment Status
Deployed

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8. ADVANTAGES & DISADVANTAGES

✅ Advantages

- Cloud-based and scalable
- No data duplication
- Automation reduces errors
- Easy to use for non-tech staff

❌ Disadvantages

- Depends on Salesforce platform
- Limited offline access
- Custom development requires Salesforce knowledge

9. CONCLUSION

The Garage Management System achieved its objectives by streamlining operations using Salesforce. It ensures real-time updates, validates data entries, and enhances customer satisfaction. The automation and cloud infrastructure make it an efficient, scalable, and reliable solution.

10. FUTURE SCOPE

Integrate payment module

Send SMS/email updates to customers

Role-based dashboards for staff and manager

Analytics and reports for admin

11. APPENDIX

🔗 GitHub Link

GitHub: https://github.com/Ishratnoori/GarageManagementSystem

THANK YOU

the username for my Developer Edition:

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